



Cover: Magnetron and a Microwave Oven

Long a leader in the application of microwave energy in radar and communications, Raytheon discovered the principle of microwave cooking and pioneered the use of microwave ovens. Now, the blend of Raytheon technology and Amana's consumer product design and marketing skills has created a whole new era of convenience cooking in the home. Shown adjacent to the controls of a Radarange microwave oven is a portion of a magnetron tube, source of the microwave energy.

Comparative Highlights

	1971	1970
Net sales	\$1,307,802,000	\$1,258,743,000
Income before extraordinary item	\$ 35,185,000	\$ 34,343,000
Extraordinary item	\$ —	\$ 3,400,000
Net income	\$ 35,185,000	\$ 30,943,000
Earnings per common share:		
Outstanding shares:		
Income before extraordinary item	\$2.43	\$2.32
Extraordinary item	\$ —	\$ (.24)
Net income	\$2.43	\$2.08
Fully diluted:		
Income before extraordinary item	\$2.32	\$2.22
Extraordinary item	\$ —	\$ (.22)
Net income	\$2.32	\$2.00
Cash dividends paid:		
Preferred stock, \$1.12 per share	\$ 1,213,000	\$ 1,362,000
Common stock, \$.60 per share	\$ 8,370,000	\$ 8,521,000
Net working capital	\$ 207,825,000	\$ 129,100,000
Net property, plant and equipment	\$ 128,686,000	\$ 133,165,000
Stockholders' equity:		
Total	\$ 292,438,000	\$ 265,441,000
Per common share, assuming full conversion of Series A preferred stock	\$19.41	\$17.69
Outstanding shares of common stock (after deducting shares in treasury):		
At end of year	14,136,834	13,766,773
Average outstanding during year	13,978,720	14,177,936
Stockholders of record	28,890	30,558
Backlog:		
Total orders	\$ 936,556,000	\$ 817,323,000
U.S. Government funded orders included above	\$ 446,233,000	\$ 386,947,000

In connection with the above, reference should be made to the Financial Review and Financial Statements.
Amounts above pertain to results for the entire year or represent year-end balances or statistics.

In 1971, your company set new highs in sales and earnings per share. The growth over 1970 was modest. However, there were many encouraging trends.

Amana Sets New High

Amana achieved a sales level of \$100 million for the first time in its history. This represents a four-fold increase in business since the merger with Raytheon in 1965. Paced by a broad range of high-quality appliances and an excellent distributor organization, Amana should continue to grow in the years ahead. On the cover of this report is the Radarange microwave oven, a product that exemplifies the blending of technology pioneered by Raytheon and applied to consumer convenience by Amana. Caloric sales also improved in 1971 and were trending upward at year end.

Seismograph Service experienced a sharp turnaround in 1971 and had the best year in its history. Geophysical exploration for oil and natural gas was up both in this country and overseas, spurred by the rapidly growing demand for increased supplies of energy. Seismograph fielded more land crews in 1971 than any other geophysical company in the world. Badger also increased its volume, with emphasis shifting to petroleum refineries; and United Engineers added substantially to its backlog of orders for electric power generating plants.

Standard A Rating

The Improved Hawk system completed an outstanding series of flight tests, was rated Standard A as fully tested and accepted by the U.S. Army, and went into full production. This will have an immediate effect on our manufacturing base and a still stronger effect in 1973. In the years ahead, we expect the Improved

Hawk to replace not only the basic Hawk systems deployed by the U.S. but also those deployed by NATO and other allied nations.

The SAM-D system, successor to the Improved Hawk, completed advanced development and we expect early entry into engineering development. We have initiated production of Computer Display Channel systems for the FAA and Missile Site Radars for the Safeguard system. Several other major programs are in their test and evaluation phase preparatory to production.

A New Commercial Market

In December, we announced agreement in principle to merge Iowa Manufacturing Company with Raytheon. The merger, expected to be consummated in March 1972, marks a resumption of Raytheon's program of growth in commercial markets through the selective acquisition of quality companies.

Iowa Manufacturing is a high quality company highly respected in its field. Headquartered in Cedar Rapids, Iowa, the company manufactures a broad line of aggregate producing and asphalt mixing plants and paving equipment for the road building and heavy construction industries.

New Products Developed

We made significant investments in new products during 1971 including a programmable data terminal system and a digital microwave communications system. D. C. Heath introduced an innovative elementary mathematics series. Several new products were developed for the semiconductor market. We expect to continue a rapid tempo of new product introduction during 1972.

Added Financial Strength

The company's balance sheet was strengthened and financial flexibility improved during the year. Proceeds of the \$50 million public offering of long-term debentures were applied to the reduction of our short-term debt. The company's net worth and working capital were increased significantly. In December, we called for redemption all of the company's preferred shares; as of this date, they have been redeemed or converted to common on a share-for-share basis.

New Growth Goals

For the past two years, your company has been essentially on a plateau. Now, we are ready for a new period of growth and have announced new management growth goals to be achieved by the end of 1975. These call for sales of \$1.8 billion, earnings per share of \$3.50, a sales mix 55 per cent commercial with \$1 billion of commercial volume, and overseas volume at 20 per cent of the total.

We believe these goals to be reasonable and attainable. The year 1972 will be a step along the way.

Thomas Z. Phillips

President

Charles Adams

Chairman

February 1, 1972

Charles F. Adams
Chairman of the Board

Thomas L. Phillips
President and Chief Executive Officer

D. Brainerd Holmes
Executive Vice President



A full sweep of Amana home appliances is on display in this Amana showroom. Included are refrigerator-freezers, the new Stor-Mor trash compactor, and the Radarange microwave oven.

Raytheon's commercial sales accounted for 51 per cent of the company's total volume in 1971, with the growth in commercial markets paced in large part by the natural resources group and Amana Refrigeration, Inc. The company's principal commercial businesses are major appliances, natural resources exploration and development, educational publishing, data systems, and electronic components and equipment.

Major Appliances

Raytheon is strongly represented in major appliance markets through the broad line of Caloric gas ranges and Amana refrigeration, microwave cooking, and heating and air conditioning products.

Successfully combining innovative, well styled, high quality products with a strong distributor and dealer network, Amana has grown steadily and substantially each year since joining Raytheon. In 1971, Amana increased its volume some 21 per cent over the record level of the previous year.

The microwave oven market, pioneered by Raytheon and now paced by Amana, is growing rapidly. Amana sales of the Radarange® microwave oven to dealers in 1971 were almost double those of the previous year. To broaden the market, Amana is now offering three home-use models at different price levels. Each is covered by a five-year warranty on parts and labor as are other Amana products for the home. Amana is expanding its microwave oven business into commer-

cial markets with the introduction of two models for restaurant, vending, and institutional use.

Another new product, the Amana Stor-Mor® trash compactor, was introduced in 1971 and sales are expected to grow in the years ahead. Through restyling and the use of foam insulation to increase capacity within the same external dimensions, Amana expects to broaden the market for its popular topmount refrigerators and compact freezers for kitchen use in both homes and apartments. Amana has also introduced a full new line of room air conditioners completely redesigned to minimize noise caused by vibration.

Caloric has fully recovered from the component replacement problem that affected its business in 1970. Sales were up in 1971 and substantially up in the last quarter of the year, and Caloric is aggressively expanding its product lines and marketing programs.

A new 36-inch gas range is being introduced to complete Caloric's line of medium-priced ranges and meet the needs of both consumer and builder markets. Presently in home tests is an electric ignition gas range that eliminates the pilot light. In 1972, Caloric will introduce a full line of waist-high, single-cavity gas ranges in both continuous-clean and self-clean models and will begin production on a line of electric ranges.



CENTURY-OLD TRADITION OF FINE CRAFTSMANSHIP



A geophysical exploration crew moves across a trackless expanse of southeastern Colorado flatland in the seismic search for oil and natural gas.





Natural Resources

Rapidly accelerating requirements for increased supplies of energy had a major impact in 1971 upon all three companies in Raytheon's natural resources group: Seismograph Service Corporation in the geophysical exploration for oil and natural gas, The Badger Company in providing additional petroleum refining capacity, and United Engineers & Constructors Inc. in meeting the urgent need for increased electric power generating capacity.

Seismograph Service functions at the front end of the energy supply chain and uses the most advanced techniques in the worldwide search for oil and gas. Oil and natural gas meet some 75 per cent of our nation's total energy needs.

Seismograph Service had an excellent year in 1971, the best since joining Raytheon in 1966. Contributing factors are the increasingly stringent economic demands made by major oil producing nations and this country's declining ability to meet its own energy needs. Concern over future availability of oil and gas supplies is bringing renewed and intense emphasis on geophysical exploration in this country and in such areas as the North Sea, West Africa, and Indonesia.

SSC's geophysical exploration activity in this country was up some 35 per cent in 1971 with crews at work in ten states stretching from Colorado to Florida.

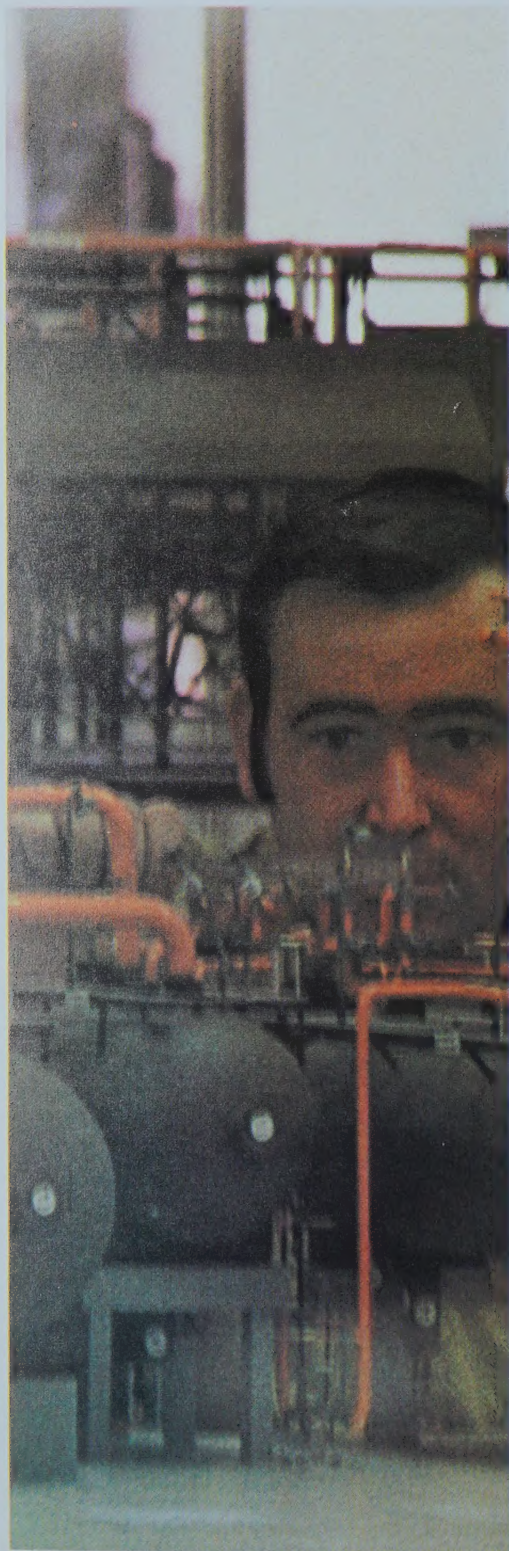
Overseas, SSC's British and French subsidiaries had land crews in West Africa, Iran, Algeria, Oman, and the Far East. Marine geophysical crews were operating on the North Sea and off the coast of Indonesia.

The Badger Company continued to expand and grow, obtained exclusive licensing rights for three new processes, and broadened its geographical coverage. Badger is a leading international company in the design, engineering, and construction of process and environmental control facilities for the petroleum, chemical, and petrochemical industries.

In 1971, Badger also felt the effects of the global energy effort. Contracts for major refinery expansion were received from British Petroleum, Shell Petroleum International, Getty Oil Company, and oil companies in Turkey and Brazil. Badger also received from Boston Gas Company a contract to design a substitute natural gas (SNG) plant. The plant, expected to be the first of its kind in commercial operation in this country, will augment supplies of natural gas with a substitute produced from propane and naphtha stocks. In the years ahead, many local gas companies will face the need for SNG supplies.

Another factor contributing to Badger's growth is the increasing requirement for environmental protection. During the year, Badger completed the design and began construction of a major fuel oil desulfurization facility at the Texaco refinery in Trinidad. Badger also received contracts from National Polychemicals and Reichhold for chemical effluent treatment projects and entered into an agreement to design and construct a pilot municipal sewage disposal plant using new and advanced techniques.

Looking like Gulliver in the land of the Lilliputians, a Badger Company engineer works out design details on a scale model of the large fuel oil desulfurization facility now under construction for Texaco in Trinidad.



In contracts won, United Engineers had the biggest year in its history, some 40 per cent above 1970. A leading company in the design, engineering, and construction of power plants, both nuclear and fossil-fueled, United is in the foreground of the current energy effort. Requirements for electric power generating capacity are expected to more than double in this decade. A major effort has been mounted by United to broaden and deepen its market penetration in the South, Southwest, and Far West. Substantial new contracts have been won in Washington, D.C., Georgia, Florida, Texas, and the State of Washington. This geographic expansion will continue in the years ahead.

The requirement that environmental protection provisions be designed into each project is broadening United's business opportunities. Among United's present projects is an innovative system for the removal of sulfur dioxide from the flue gases of a large power generating station.

In another area of its business, United completed the engineering and construction of a continuous casting facility for Lukens Steel Company. The largest single strand installation in the world, the project broadens the scope of United's services to the steel industry in the hot metal phases of steel production.

The scope of the engineering and construction projects carried out by United Engineers is apparent in this nuclear power station now under construction on Three Mile Island near Harrisburg, Pennsylvania.



"Math a kid can love a little" is the way D. C. Heath and Company describes its creative new Heath Elementary Mathematics Program. The program emphasizes the excitement and the everyday usefulness of math.

Publishing

D. C. Heath and Company accelerated in 1971 its continuing program to develop innovative new instructional materials for school and college use.

During the year, 38 new titles were published by the School Division and 123 by the College Division. Pacing sales in 1971 was the newest edition of Thomas Bailey's *The American Pageant*, a widely used college history text.

A major new entry was made into the elementary school mathematics market with the introduction of the Heath Elementary Mathematics Program, a comprehensive series of texts, tapes, and manipulatives for children in kindergarten through grade eight. Units through grade six were published early in 1972. Response to the new math program is enthusiastic.

Prepared by a team of authors and educational specialists, the program reflects the need expressed by teachers and students for material that would project the interest and excitement of the subject. Program emphasis is not on training students to be mathematicians but rather on providing an effective tool for use in later life.

Contracts have been signed with leading authors for the preparation of introductory college texts in psychology, sociology, and western civilization. Each text is under development by an author team of widely recognized scholarship in its field.





Data Systems

Early in 1971, Raytheon Data Systems Company was formed to consolidate Raytheon's commercial data processing, data display, and microwave communications capabilities and concentrate them on the growing market for communications-oriented data processing systems.

Emphasis during the year was on the development of two major new products: the PTS-100 Programmable Terminal System and the RDS-80 digital microwave communications system. The PTS-100, capable of serving up to 32 remotely located display terminals, will meet a wide range of data systems needs. The RDS-80 will meet the need for high capacity digital multiplexing and transmission of voice and data between metropolitan areas.

RDS will be a major competitor in the market created by the FCC ruling authorizing special service microwave common carrier networks. In 1971, RDS completed installation of a major link of one of these networks. The link runs between Chicago and St. Louis.

Components and Equipment

Raytheon's Semiconductor Division improved its performance in a still sluggish market during 1971 and, of greater significance to growth in the years ahead, made advances in both process and product technology.

These included advanced hybrid assembly techniques, beam lead interconnections for higher reliability, and the division's V-ATE (Vertical Anisotropic Etch) process for the production of high speed, random access computer memories.

Important developments in microwave components included the use of

Raytheon-invented samarium cobalt magnets in crossed-field amplifier tubes to further reduce their size and weight, a new helix cooling technique for traveling wave tubes, a new tuning mechanism for coaxial magnetrons, advanced microwave transistors for phased array radars, and a locked avalanche diode oscillator for advanced communications systems.

In the medical field, Raytheon's nuclear scanners are being well received, the company's Machlett Laboratories introduced a new rotating anode X-ray tube and mirror imaging X-ray subsystem, and the Research Division developed and is testing a greatly improved imaging processing technique for both nuclear and X-ray diagnostic use.

Consolidation of the company's marine electronics products and Sorensen power supplies in a new manufacturing facility in Manchester, New Hampshire, was completed in 1971. New products are being introduced in both lines.

For improved marine communications, the maritime nations of the world are phasing out medium frequency AM marine radiotelephones in favor of very high frequency FM equipment. Raytheon has introduced a 12-channel VHF/FM marine radiotelephone, and a higher-priced model with advanced circuitry and an unusually precise receiver is going into production for the new boating season. Three new Fathometer® depth sounders and a loran receiver have also been introduced.

To supplement its line of controlled power products for laboratory use, Raytheon is introducing a new line of compact Sorensen power supplies for use in computer peripheral, process control, quality control, and other industrial applications.

Capable of distributing data to as many as 32 remotely located display terminals like the one shown here, Raytheon's new Programmable Terminal System will meet a wide range of data handling and communications needs in hospital, airline, retail chain, insurance, and other applications.



Government Programs

Displays for use by air traffic controllers in final acceptance tests before delivery to FAA training center in Oklahoma City. Displays are part of Computer Display Channel equipment developed for FAA National Airspace System.

Raytheon's government businesses cover a broad and diverse range of programs vital to the security of the nation.

The particular strengths that Raytheon brings to these programs are its depth of technical skill, experience in systems engineering and management, and ability to design and produce effective, efficient, and fully coordinated total systems.

These same technological and systems management skills are applied to the safe and efficient control of the growing volume of high speed jet air traffic and to vehicular traffic control systems for increased safety on the highways.

Air Traffic Control

Raytheon has for many years been a major supplier of air traffic control equipment to the Federal Aviation Administration and is steadily broadening its services to civil aviation both in this country and overseas.

The largest and most important single air traffic control program is the Computer Display Channel, a major element of the FAA's National Airspace System. The Computer Display Channel will significantly increase the efficiency of air traffic controllers by performing for them electronically many of the functions they now perform manually.

In 1971, Raytheon completed development, entered production, and started customer acceptance tests of the Computer Display Channel system prepara-

tory to delivery of two complete systems in the first quarter of 1972. The first of these will be used at the FAA Aeronautical Center in Oklahoma City for the training of maintenance and operating personnel; the second will be installed at the FAA air traffic control center in Los Angeles. Following integration with the central computer complex, the Los Angeles system is expected to be fully operational early in 1973.

Computer Display Channel Systems are now on order for all major enroute air traffic control centers. A contract has also been received for Plan View Displays to be installed at the FAA's five busiest control centers.

Featuring its contributions to safety in air travel, Raytheon displayed its services to modern aviation at international shows in Paris and Tokyo. These range from integrated air traffic control systems and advanced aircraft landing systems to passenger reservation, check-in, and boarding systems.

For the U.S. Air Force, Raytheon has developed an advanced and innovative aircraft landing system. Designated AN/TPN-19 Landing Control Central, this Ground Control Approach system will provide safe and accurate final approach and landing at remote locations in even the most severe weather. The system, housed in three modular shelters, is easily transportable and can be in place and operating in less than an hour.





Operation shelter houses data processing, data display, and communications equipment for the U.S. Air Force AN/TPN-19 all-weather tactical air traffic control system.



In 1971, development was completed and a prototype system produced and installed at Grenier Field, New Hampshire for flight tests. Initial test results are excellent and a production contract is expected in 1972.

Tactical Defense

Raytheon's capabilities in tactical air defense range across the full spectrum of protection for forward area troops, aircraft, and ships at sea. The company is prime contractor for the Hawk and SAM-D ground-to-air systems, the Sparrow III air-to-air system, the NATO Seasparrow system, Sidewinder air-to-air missiles, and shipboard radar guidance and fire control systems.

Reliability demonstration flight tests of the Improved Hawk were successfully completed in 1971, and early in 1972 full production was initiated. The Improved Hawk provides significant advantages in guidance, range, performance, and economy of operation; it will replace basic Hawk units now deployed throughout the free world.

Replacing the Improved Hawk and Nike Hercules systems in the late 1970's and beyond will be the SAM-D surface-to-air missile system. Employing the most advanced concepts in surface-to-air missile defense against attacking aircraft, the SAM-D system has completed advanced development and thoroughly demonstrated its feasibility.

Compact, mobile, and economical to operate, the system marks the first application of phased array radar to tactical air defense. The SAM-D's phased array

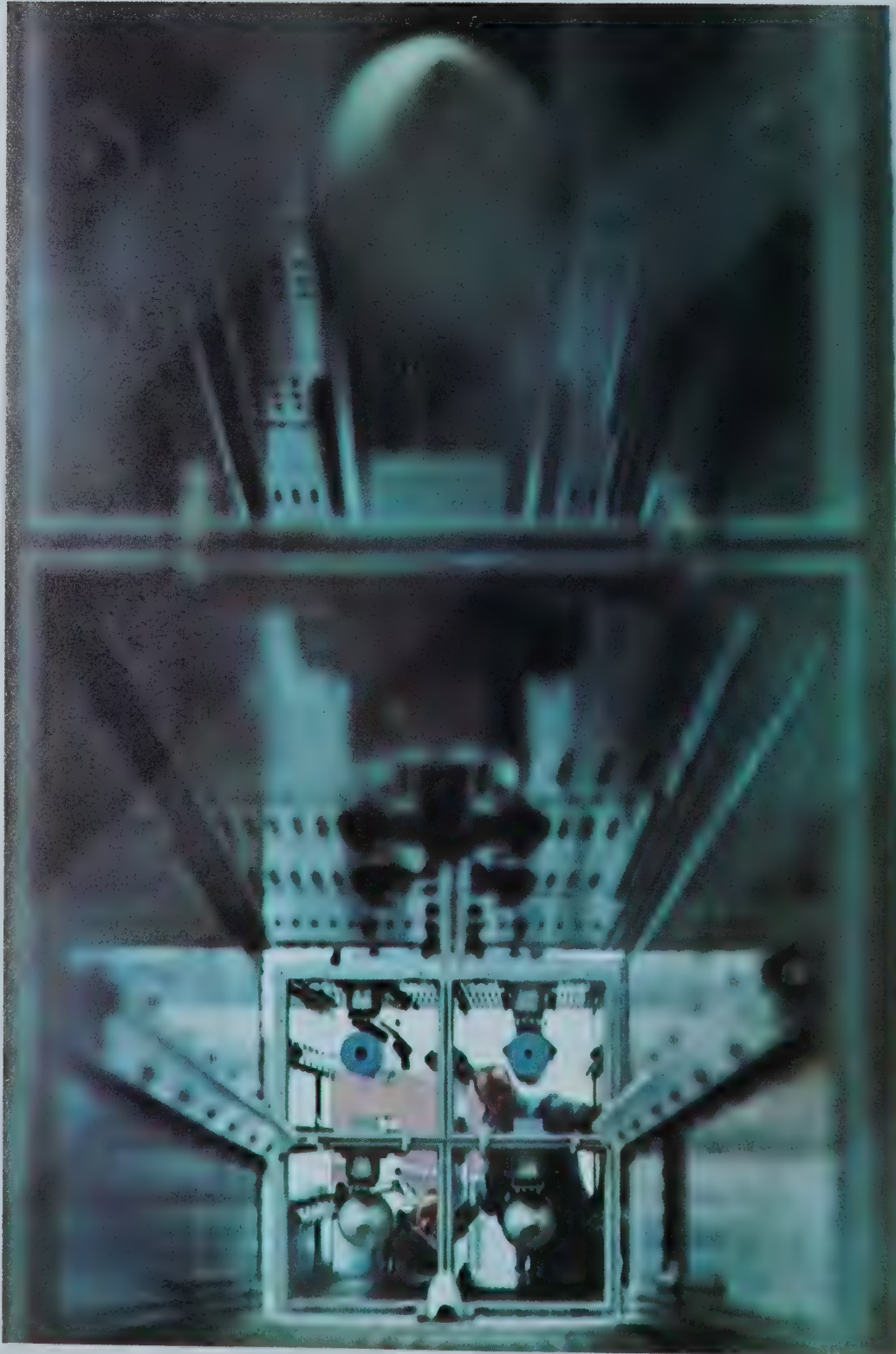
radar performs the acquisition, tracking, guidance, and other functions that require a multiplicity of separate radars in present systems. Engineering development of the SAM-D system is expected to commence in the first part of 1972.

The Advanced Sparrow system development progressed significantly, missiles are in flight test, and production is expected to be initiated early in 1973. Raytheon is producing the AIM-9H solid state Sidewinder, an infrared-guided or heat-seeking missile, and is in engineering development of the AIM-9L, an advanced version. Raytheon is also producing the Chaparral missile, surface-to-air version of the Sidewinder for use by the U.S. Army. The company further expanded its capabilities in electro-optical sensors with the development of the Rayscan infrared seeker now undergoing tests by the U.S. Navy.

Shipboard Defense Systems

Raytheon is a major contributor to shipboard air defense systems for the U.S. and allied navies. Programs include radar fire control equipment for the U.S. Navy's Tartar systems, the NATO Seasparrow and Canadian Seasparrow systems, and the U.S. Navy's Aegis advanced surface missile system on which Raytheon is the major subcontractor.

Launcher for NATO Seasparrow shipboard air defense system. At top is a Seasparrow in place; seen through lower launching cell, Raytheon engineers test a four-cell unit.



Production of Tartar C and Tartar D fire control systems is expected to continue into the mid-1970's. Raytheon's role in the Aegis program is development of the guidance illuminators, the high power transmitter for the phased array radar, and major portions of the weapons command and control system. Prototype hardware for the Aegis system has been developed and preliminary testing will begin in 1972.

Raytheon is the prime contractor on the NATO Seasparrow program, an international cooperative program for the air defense of ships of the NATO navies. Participating countries are Belgium, Italy, Denmark, The Netherlands, Norway, and the United States. The program is now in the test and evaluation phase with production expected to begin in the last quarter of 1972. Raytheon Canada Limited is prime contractor on the Canadian Seasparrow.

Strategic Defense

Raytheon developed and is producing Missile Site Radars for the Safeguard ballistic missile defense system. Contracts have been received for the production of MSR's for the three Safeguard sites authorized by Congress. A fourth site has been approved for site preparation.

The Missile Site Radar located at Meck Island in the Pacific has met all of its research and development objectives. In 1971, the MSR successfully guided Spartan and Sprint missiles in both single and multiple flights during a series of test missions.

In support of the U.S. Navy's Fleet Ballistic Missile program, Raytheon continues production of the missile guidance computers for the Poseidon submarine fleet.

Electronic Countermeasures

A leading company in electronic countermeasures, Raytheon continues as a major producer of airborne ECM equipment for the U.S. Navy and Air Force and made excellent progress in the development and testing of an advanced multi-beam technology to meet their future ECM needs.

Underwater Acoustics

Raytheon is a major producer of anti-submarine warfare equipment and continues to supply the sonar systems for the U.S. Navy's nuclear attack submarine fleet. A new merchant ship sonar is being developed for the U.S. Maritime Commission for use as an anti-stranding system by supertankers and other deep-draft vessels. By computing the average slope of the underseas surface and looking ahead for undersea obstacles, the system is designed to avoid stranding accidents and their possible environmental consequences.



Environmental Services

Raytheon offers a wide range of environmental monitoring and pollution abatement and control equipment and services.

These activities were extended during the year with the acquisition of a line of water quality monitoring and analysis equipment. A complete water quality monitoring and display system was installed for the State of Ohio. The company's Environmental Research Laboratory provides extensive ecological studies and other services to federal, state, and local agencies of government and to industry.

Civic Technology

The civic technology group is dedicated to application of the company's technological and systems management capabilities to such needs as the safe and efficient control of vehicular traffic and effective planning in the development and use of natural resources.

A real-time traffic surveillance and control system was developed and installed by Raytheon for the California Division of Highways on the heavily traveled triangle comprised of the Santa Monica, Harbor, and San Diego Freeways in Los Angeles. Traffic data is gathered from more than 900 sensors embedded in the freeways and is continuously processed. Any interruption in the smooth flow of traffic is immediately registered on a display panel in the Freeway Operations center so that corrective action can be taken.

The Raytheon-developed Ramp Merging System, designed to help motorists to merge smoothly and safely onto high-speed highways, will be tested this year at 15 ramps along a highway to be

selected by the U.S. Department of Transportation. Also scheduled for tests is Raytheon's passing aid system for use on hilly, winding roads.

The company's Autometric Operation is applying its photogrammetric and photo interpretation skills to such projects as the state-wide mapping of wetlands and the production of detailed orthophotographic contour maps for use by states and municipalities in planning wise use of their natural resources.

Worldwide Services

Raytheon Service Company broadened its worldwide engineering, installation, operation, maintenance, and training services during the year. Contracts were received from the U.S. Department of Transportation for publication and technical information services and from the U.S. Navy for engineering and integration support services on shipboard defense system computers. Early in 1972, a contract was received from the Argentine Navy for the systems integration of navigation, communications, and hydrographic equipment aboard a hydrographic survey ship.

In the training area, RSC received contracts from the U.S. Coast Guard to develop and test two self-instructional programs in boating safety, from Boston Edison Company for a survey of training needs in combustion engineering, and from the government of Kenya for a training program in diesel mechanics.





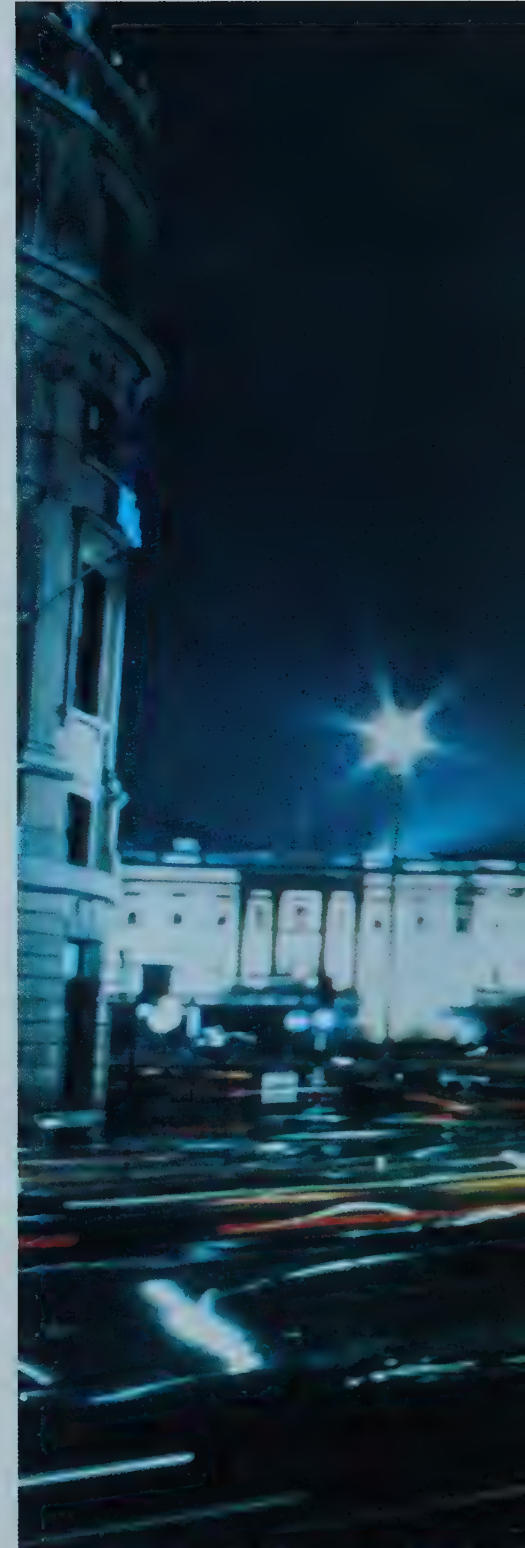
Raytheon's overseas sales continue to keep pace with the company's overall growth and account for some 20 per cent of total annual volume. These sales are generated by Raytheon's two multi-national subsidiaries, Badger and Seismograph Service; overseas subsidiaries and affiliates; and an aggressive export program.

The company's principal overseas subsidiary is A.C. Cossor Limited in England. Included in the Cossor group of companies are Cossor Electronics Limited, Sterling Cable Company, and Electrical Installations, Limited. Raytheon has, in total, 14 overseas subsidiaries operating 15 facilities in five nations in Europe and the Far East.

Long a leading supplier of avionics and both airborne and ground-based air traffic control equipment, Cossor is also a major producer of Raytheon data display systems. Among the major installations during the year were an air cargo control system at London's Heathrow airport and a reservation system for the Swiss Hotel Federation.

Electrical Installations designed and installed power and lighting systems for Heathrow airport, Trafalgar Square in London, and the newly reconstructed Coventry Cathedral where the company had responsibility for the complete electrical power, lighting, sound, and television systems.

Raytheon's export business ranges from electronic components to major air defense systems, including such international cooperative efforts as the NATO Hawk and NATO Seasparrow programs. Equipment exports include computers and data displays, marine navigation and communications gear, Amana appliances, and instructional materials.





Worldwide Consolidated Net Sales in 1971 were a record \$1.308 billion, an increase of \$49 million or 3.9% over the \$1.259 billion sales in 1970. The increase was attributable to continued growth in the commercial operations of the company combined with an approximately constant level of U.S. Government end use sales. Of the total sales volume, 49% was for U.S. Government end use compared with 50% in 1970, 55% in 1969, and 58% in 1968.

Income increased to \$35.2 million, 2.6% higher than the \$34.3 million before the extraordinary charge reported in 1970. The 1971 return on sales of 2.69% approximated the 2.73% in 1970.

Earnings Per Common Share were \$2.43 compared with \$2.32 before the extraordinary charge in 1970. These figures represent net income computed on the average number of outstanding shares (13,978,720 during 1971; 14,177,936 during 1970) after provision for the dividend requirements on the preferred stock. If all outstanding preferred stock had been converted to common stock at the beginning of the period and all applicable stock options exercised, fully diluted 1971 earnings per share would be \$2.32 compared with \$2.22 per share in 1970 before the extraordinary charge.

Dividends on the company's common stock were paid quarterly in cash at the annual rate of \$.60 per share. In addition, the normal annual dividend of \$1.12 was paid in cash on the Series A preferred stock. The total dividends of \$9.6 million declared in 1971 equalled 27% of consolidated net earnings.

Common Shares outstanding increased by approximately 370,000 in 1971. Key employees purchased 73,234 shares under the provisions of the company Stock Option Plan; 306,827 shares were issued for conversion of a like number of shares of the Series A preferred stock; and 10,000 shares were purchased by the company.

In December 1971 the company called for redemption all of its Series A preferred stock on February 1, 1972 at \$27.69 per share, with the provision that holders may elect to convert by that date their Series A shares to common on a share-for-share basis.

Total Stockholders' Equity increased \$27.0 million to \$292.4 million. The increase was provided by income of \$35.2 million and the exercise of employee stock options of \$1.8 million, offset by dividends of \$9.6 million and purchases of company stock for \$.3 million. The book value per share of common stock, assuming full conversion of the preferred stock, increased from \$17.69 to \$19.41 during the year. The return on stockholders' equity declined from 13.1% in 1970 to 12.6% in 1971.

Debt decreased \$10.6 million from \$156.6 million at the end of 1970 to \$146.0 million at December 31, 1971. In July 1971, \$50.0 million of 25 year 8¼ % Sinking Fund Debentures were sold, the proceeds of which were used to reduce short-term debt. The company continues to issue commercial paper and maintains bank credit lines to finance its short-term borrowing requirements.

Working Capital increased \$78.7 million to \$207.8 million at December 31, 1971 as compared with \$129.1 million at the end of 1970. Of this increase, \$50.0 million resulted from the reduction of short-term debt upon issuance of the 25 year 8¼ % Sinking Fund Debentures and the balance principally from the increase in stockholders' equity.

Backlog of funded U.S. Government orders increased 15.2% to \$446 million from the \$387 million on hand at the end of 1970. The company's total backlog of \$936.6 million at the end of 1971 represents a 14.6% increase over the \$817.3 million at the end of 1970.

Wages and Salaries paid to employees were \$472.7 million in 1971, compared to \$475.0 million in 1970. Total employment declined slightly to 45,750 at the end of 1971 from 46,200 at the end of 1970.

A new two-year collective bargaining Agreement resulting in improved compensation and benefit programs became effective in September with IBEW, Local 1505, affecting approximately 7,000 production and maintenance employees in Massachusetts. Agreements were also reached with the International Association of Machinists covering employees in Rhode Island and Iowa. Improved compensation and benefit programs have also been implemented for the company's non-unionized employees.

Plant and Equipment decreased \$4.5 million in 1971 compared with the \$16.7 million increase in 1970. Capital expenditures of \$27.1 million were offset by depreciation of \$27.2 million, and disposals of \$4.4 million.

Research and Development expenditures for company-sponsored projects increased in 1971 to \$32.5 million from \$28.2 million in 1970. This was in addition to significant amounts of Government-funded research and development expended on U.S. Government contracts.

Pension Expense charged to operations in 1971 for all plans was \$8.6 million. The company charges all current costs of pensions to operations as well as regular planned amounts for prior service where such liability exists. Pension funds of all plans affecting the United States and Canadian companies are managed by independent professional trustees.

As Recorded in Annual Reports

	1971	1970	1969	1968	1967	1966
	\$1,307,802	\$1,258,743	\$1,285,134	\$1,157,963	\$1,106,049	\$ 708,993
	\$ 64,460	\$ 65,133	\$ 69,562	\$ 59,960	\$ 54,405	\$ 36,478
	\$ 35,185	\$ 34,343	\$ 35,232	\$ 30,845	\$ 28,602	\$ 18,443
	\$ 35,185	\$ 30,943	\$ 35,232	\$ 29,569	\$ 28,602	\$ 18,443
	\$2.43	\$2.32	\$2.35	\$2.10	\$1.98	\$1.45
	\$2.43	\$2.08	\$2.35	\$2.01	\$1.98	\$1.45
	\$2.32	\$2.22	\$2.24	\$2.02	\$1.90	\$1.43
	\$2.32	\$2.00	\$2.24	\$1.94	\$1.90	\$1.43
	2.7%	2.7%	2.7%	2.7%	2.6%	2.6%
	12.6%	13.1%	14.3%	14.4%	15.1%	11.9%
	\$ 8,370	\$ 8,521	\$ 7,547	\$ 6,271	\$ 5,023	\$ 4,055
	\$ 1,213	\$ 1,362	\$ 863	\$ 867	\$ 885	\$ —
	\$ 442,316	\$ 405,676	\$ 403,592	\$ 361,151	\$ 364,492	\$ 301,429
	\$ 128,686	\$ 133,165	\$ 116,348	\$ 91,087	\$ 78,255	\$ 63,949
	\$ 41,533	\$ 38,445	\$ 18,896	\$ 13,428	\$ 17,298	\$ 16,592
	\$ 612,535	\$ 577,286	\$ 538,836	\$ 465,666	\$ 460,045	\$ 381,970
	\$ 207,825	\$ 130,124	\$ 158,012	\$ 160,391	\$ 148,042	\$ 122,880
	1.89	1.47	1.64	1.80	1.68	1.69
	\$ 146,031	\$ 156,557	\$ 116,221	\$ 116,568	\$ 155,143	\$ 140,440
	\$ 292,438	\$ 265,441	\$ 259,825	\$ 225,652	\$ 200,948	\$ 161,042
	\$ 19.41(2)	\$ 17.69(2)	\$ 16.57(2)	\$ 14.93(2)	\$ 13.48(2)	\$ 12.48(2)
	.50	.59	.45	.52	.77	.87
	\$ 446,233	\$ 386,947	\$ 299,042	\$ 429,151	\$ 380,287	\$ 354,379
	45,750	46,201	53,300	51,588	50,146	41,821
	\$ 32,545	\$ 28,236	\$ 29,553	\$ 26,163	\$ 22,560	\$ 19,536
	\$ 27,222	\$ 26,342	\$ 22,153	\$ 19,585	\$ 16,694	\$ 12,422
	\$ 27,081	\$ 47,087	\$ 48,137	\$ 33,130	\$ 26,545	\$ 23,567
	14,136,834	13,766,773	14,423,465	14,347,131	14,123,872	12,115,450
	932,356	1,239,183	1,259,263	770,403	788,948	792,023

Notes:

(1) Earnings per outstanding share statistics are computed on average number of shares, and on earnings reduced by preferred stock dividend requirements. Fully diluted earnings per share assumes the full conversion of Series A preferred shares and the net additional shares resulting from the exercise of all outstanding dilutive stock options.

(2) Assuming full conversion of Series A preferred stock.

(3) Statistics for all years prior to 1968, relating to the number of common shares outstanding, have been adjusted to give effect to the two-for-one common stock split on June 4, 1968.

Statistical Summary

Raytheon Company and Consolidated Subsidiaries

(Dollars in Thousands Except Per Share Statistics)

Restated to Reflect Poolings of Interests

	1971	1970	1969	1968	1967	1966
Sales						
Net sales	\$ 1,307,802	\$ 1,258,743	\$ 1,286,144	\$ 1,193,806	\$ 1,149,415	\$ 914,139
Income						
Net income:						
Before taxes	\$ 64,460	\$ 65,133	\$ 69,674	\$ 62,133	\$ 56,529	\$ 42,918
Before extraordinary items	\$ 35,185	\$ 34,343	\$ 35,303	\$ 31,788	\$ 30,112	\$ 21,411
After extraordinary items	\$ 35,185	\$ 30,943	\$ 35,303	\$ 30,512	\$ 30,112	\$ 21,411
Earnings per common share: (1)						
Outstanding shares:						
Before extraordinary items	\$ 2.43	\$ 2.32	\$ 2.34	\$ 2.12	\$ 2.02	\$ 1.42
After extraordinary items	\$ 2.43	\$ 2.08	\$ 2.34	\$ 2.03	\$ 2.02	\$ 1.42
Fully diluted:						
Before extraordinary items	\$ 2.32	\$ 2.22	\$ 2.24	\$ 2.02	\$ 1.92	\$ 1.38
After extraordinary items	\$ 2.32	\$ 2.00	\$ 2.24	\$ 1.94	\$ 1.92	\$ 1.38
Income before extraordinary items as % of sales	2.7%	2.7%	2.7%	2.7%	2.6%	2.3%
Income before extraordinary items as % of average total stockholders' equity	12.6%	13.1%	14.3%	14.4%	15.4%	12.1%
Dividends Paid						
Common stock cash dividends	\$ 8,370	\$ 8,521	\$ 7,547	\$ 6,271	\$ 5,023	\$ 4,055
Preferred stock cash dividends	\$ 1,213	\$ 1,362	\$ 863	\$ 867	\$ 885	\$ —
Assets						
Current	\$ 442,316	\$ 404,651	\$ 404,304	\$ 377,009	\$ 380,089	\$ 349,508
Property, plant and equipment (net)	\$ 128,686	\$ 133,165	\$ 116,453	\$ 91,918	\$ 80,249	\$ 71,604
Other noncurrent assets	\$ 41,533	\$ 39,470	\$ 19,076	\$ 14,160	\$ 17,506	\$ 17,475
Total	\$ 612,535	\$ 577,286	\$ 539,833	\$ 483,087	\$ 477,844	\$ 438,587
Working Capital						
Net working capital	\$ 207,825	\$ 129,100	\$ 158,269	\$ 166,268	\$ 153,152	\$ 139,768
Ratio of current assets to current liabilities	1.89	1.47	1.64	1.79	1.67	1.67
Financial Structure						
Total debt	\$ 146,031	\$ 156,557	\$ 116,296	\$ 118,368	\$ 157,263	\$ 149,799
Common stockholders' equity	\$ 292,438	\$ 265,441	\$ 260,367	\$ 233,091	\$ 208,210	\$ 182,906
Common stockholders' equity per share	\$ 19.41(2)	\$ 17.69(2)	\$ 16.51(2)	\$ 14.83(2)	\$ 13.37(2)	\$ 11.87(2)
Debt to equity ratio50	.59	.45	.51	.76	.82
General						
Funded backlog of U.S. Government orders	\$ 446,233	\$ 386,947	\$ 299,042	\$ 429,151	\$ 380,287	\$ 354,379
Number of employees	45,750	46,201	53,322	54,029	52,620	44,295
Research & development (company sponsored)	\$ 32,545	\$ 28,236	\$ 29,553	\$ 26,163	\$ 22,661	\$ 19,917
Depreciation and amortization on property, plant and equipment	\$ 27,222	\$ 26,342	\$ 22,162	\$ 19,710	\$ 17,026	\$ 13,275
Additions and replacements in property, plant and equipment	\$ 27,081	\$ 47,087	\$ 48,206	\$ 33,332	\$ 26,883	\$ 26,926
Shares outstanding (after deducting shares in treasury):						
Common	14,136,834	13,766,773	14,511,637	14,443,854	14,287,325	14,116,285
Preferred	932,356	1,239,183	1,259,263	1,270,403	1,288,948	1,292,023

Balance Sheets

Raytheon Company and Consolidated Subsidiaries

Assets	December 31, 1971	December 31, 1970
Current assets		
Cash	\$ 36,004,632	\$ 24,685,099
Accounts receivable:		
U.S. Government contracts, direct and indirect, including unbilled costs and fees on cost-type contracts: 1971 – \$17,324,569; 1970 – \$7,131,445 ..	52,245,611	38,801,883
Other customers, less allowance for doubtful accounts: 1971 – \$1,771,949; 1970 – \$1,449,685	124,084,393	109,057,985
Inventories (note B):		
Fixed price contracts in process, less progress payments: 1971 – \$250,864,287; 1970 – \$234,720,303	109,351,805	108,190,592
Other	115,495,368	116,999,632
Prepaid expenses	5,133,935	6,916,103
Total current assets	442,315,744	404,651,294
Long-term receivables	20,074,710	18,100,323
Investments (note A):		
Affiliated companies	2,461,167	2,484,712
Other, at cost	5,778,805	6,290,716
Property, plant and equipment, at cost, less accumulated depreciation and amortization (note C)	128,685,887	133,165,037
Deferred charges and other assets	13,218,873	12,593,572
	<u>\$612,535,186</u>	<u>\$577,285,654</u>

The accompanying notes are an integral part of the financial statements.

Liabilities and Stockholders' Equity

December 31, 1971

December 31, 1970

Current liabilities

Notes payable:

Banks \$ 23,369,776 \$ 73,296,546

Other, principally commercial paper 34,025,000 43,961,174

Current maturity of long-term debt (note D) 3,029,532 3,005,499

Advance payments, less fixed price contracts in process:

1971 - \$118,181,154; 1970 - \$50,547,013 20,909,918 12,567,308

Accounts payable 63,817,005 59,608,448

Accrued salaries, wages and commissions 29,481,141 28,491,328

Federal and foreign income taxes (note E) 22,768,678 17,507,755

Other accrued expenses 37,089,319 37,113,447

Total current liabilities 234,490,369 275,551,505

Long-term debt (note D) 85,606,353 36,293,623**Commitments and contingent liabilities** (note F)**Stockholders' equity**

Serial preferred stock, without par value:

Authorized 3,000,000 shares

Series A, \$1.12 cumulative, convertible, stated value \$2.50

Outstanding: 1971 - 932,356 shares;

1970 - 1,239,183 shares (note J) 2,330,890 3,097,957

Common stock, par value \$2.50 per share:

Authorized 30,000,000 shares

Outstanding: 1971 - 14,136,834 shares; 1970 - 13,766,773 shares

(after deducting shares in treasury: 1971 - 1,010,963 shares;

1970 - 1,000,963 shares) (notes G and J) 35,342,085 34,416,933

Capital in excess of par value (note J) 45,677,595 44,095,687

Earnings reinvested in the business (note D) 209,087,894 183,829,949

Total stockholders' equity 292,438,464 265,440,526

\$612,535,186 \$577,285,654

Statements of Income and Earnings Reinvested in the Business

Raytheon Company and Consolidated Subsidiaries

	Year Ended December 31, 1971	Year Ended December 31, 1970
Net sales	\$1,307,802,298	\$1,258,742,834
Cost of sales	1,088,878,165	1,047,591,491
Administrative and selling expenses	122,222,653	113,049,145
Research and development expenses	32,545,214	28,236,465
Interest expense on long-term debt	4,111,542	2,325,933
Other interest expense	6,155,617	10,030,132
Other income – net	(10,570,793)	(7,623,360)
	<u>1,243,342,398</u>	<u>1,193,609,806</u>
	64,459,900	65,133,028
Federal and foreign income taxes (note E)	<u>29,275,000</u>	<u>30,790,000</u>
Income before extraordinary item	35,184,900	34,343,028
Extraordinary item:		
Provision for loss (after tax benefit of \$3,300,000) on notes receivable and related costs associated with the sale of an operating unit to Visual Electronics Corporation, which filed a petition in bankruptcy in 1970	<u>—</u>	<u>3,400,000</u>
Net income	35,184,900	30,943,028
Earnings reinvested in the business at beginning of period	<u>183,829,949</u>	<u>174,648,319</u>
	<u>219,014,849</u>	<u>205,591,347</u>
Dividends declared:		
Preferred, \$1.12 per share	1,213,342	1,361,886
Common, \$.60 per share	8,424,822	8,422,806
Excess of cost over the par value of reacquired common shares less amount allocated to capital in excess of par value	<u>288,791</u>	<u>11,976,706</u>
	<u>9,926,955</u>	<u>21,761,398</u>
Earnings reinvested in the business at end of period	<u>\$ 209,087,894</u>	<u>\$ 183,829,949</u>
Earnings per common share (notes H and J):		
Outstanding shares (before conversion of preferred stock):		
Income before extraordinary item	\$2.43	\$2.32
Extraordinary item	<u>—</u>	<u>(.24)</u>
Net income	<u>\$2.43</u>	<u>\$2.08</u>
Fully diluted:		
Assuming conversion of preferred stock:		
Income before extraordinary item	\$2.34	\$2.23
Extraordinary item	<u>—</u>	<u>(.22)</u>
Net income	<u>\$2.34</u>	<u>\$2.01</u>
Assuming conversion of preferred stock and exercise of dilutive stock options:		
Income before extraordinary item	\$2.32	\$2.22
Extraordinary item	<u>—</u>	<u>(.22)</u>
Net income	<u>\$2.32</u>	<u>\$2.00</u>

The accompanying notes are an integral part of the financial statements.

Statements of Changes in Financial Position

Raytheon Company and Consolidated Subsidiaries

	Year Ended December 31, 1971	Year Ended December 31, 1970
Resources provided:		
Income before extraordinary item	\$ 35,184,900	\$ 34,343,028
Depreciation and amortization of property, plant and equipment	27,222,478	26,342,195
Working capital provided from operations exclusive of extraordinary item	62,407,378	60,685,223
Working capital applied to extraordinary item	—	(3,400,000)
Disposal of property, plant and equipment	4,337,402	4,032,866
Issuance of 8¼ % Sinking Fund Debentures	50,000,000	—
Other increases (decreases) in long-term debt	(687,270)	2,862,312
Sale of common stock under option plans	1,794,952	205,105
Conversion of Series A preferred stock:		
(Decreased) preferred stock	(767,067)	(50,201)
Increased common stock	767,067	50,201
Total resources provided	117,852,462	64,385,506
Resources applied:		
Additions to property, plant and equipment	27,080,730	47,086,769
Increase in long-term receivables	1,974,387	10,225,227
Increase (decrease) in investments	(535,456)	1,686,168
Increase in deferred charges and other assets	625,301	7,520,741
Common shares reacquired	343,750	16,290,119
Dividends declared	9,638,164	9,784,692
Total resources applied	39,126,876	92,593,716
Increase (decrease) in working capital	\$ 78,725,586	\$ (28,208,210)
Analysis of changes in working capital:		
Increase in cash	\$ 11,319,533	\$ 3,300,625
Increase in accounts receivables	28,470,136	8,307,095
(Decrease) in inventories	(343,051)	(10,235,684)
(Decrease) in prepaid expenses	(1,782,168)	(63,433)
(Increase) decrease in short-term debt	59,838,911	(37,398,662)
(Increase) decrease in advance payments	(8,342,610)	6,246,942
(Increase) in accounts payable	(4,208,557)	(4,790,473)
(Increase) in salaries, wages and commissions	(989,813)	(3,075,803)
(Increase) decrease in Federal and foreign income taxes	(5,260,923)	11,958,480
(Increase) decrease in other accrued expenses	24,128	(2,457,297)
Increase (decrease) in working capital	\$ 78,725,586	\$ (28,208,210)

The consolidated financial statements include the accounts of the parent company and domestic and foreign subsidiaries which are included on the basis of years ending in November or December. Certain account balances in 1970 have been reclassified to be comparable with those of 1971.

On December 10, 1971, the company announced an agreement in principle to acquire Iowa Manufacturing Company and Iowa Steel and Iron Works, Inc. in exchange for shares of the company's common stock. The exact exchange ratio is based upon a formula relating to the market value of the company's common stock prior to the acquisition. The number of common shares to be issued will range between a maximum of 1,262,000 shares and a minimum of 1,033,000 shares. This transaction, subject to the approval of the shareholders of the companies to be acquired, is expected to be consummated in March, 1972 and will be accounted for as a pooling of interests.

Had the Iowa companies been included in the consolidated statements of the company on a pooling of interests basis, the pro forma results would have been as follows:

Pro forma	1971	1970
Stockholders' equity	\$ 329,124,000	\$ 300,347,000
Net sales	\$1,347,060,000	\$1,298,390,000
Income before extraordinary item	\$ 38,428,000	\$ 37,030,000
Earnings per common share before extraordinary item (based upon pro forma outstanding shares)	\$ 2.47	\$ 2.33

The pro forma data presented above is based upon the consolidated reported results of the Iowa companies in 1970 and their estimated results for 1971. The pro forma earnings per common share before extraordinary item give retroactive effect to an assumed issuance of 1,101,266 common shares of the company (based upon the December 31, 1971, price of \$39.50 per share) as if effected on January 1, 1970.

During 1971, the basis of stating investments in 20% to 50% owned companies, previously stated at cost, was changed to reflect the company's equity in their earnings since dates of acquisition. This change in accounting practice had no significant effect on the consolidated financial statements and, accordingly, the financial statements of prior years have not been restated. Investments in the common stock of less than 20% owned companies are stated at cost.

Net assets of the foreign subsidiaries are translated into United States dollars at the applicable rates of exchange in effect at December 31, 1971 and 1970, except that inventories other than fixed price contracts in process and property, plant and equipment are translated at historic rates. Income accounts are translated, generally, at the year's average rates of exchange, except for depreciation and costs of sales which are translated at the rates of the related assets. Currency exchange gains or losses are included in consolidated net income. In 1971, approximately \$500,000 of net foreign exchange translation gain attributable to currency revaluations was included in consolidated net income. There are no significant exchange restrictions.

The net assets, net sales and net income of consolidated foreign companies (other than Canadian) were:

	1971	1970
Net assets	\$ 30,137,636	\$ 26,825,572
Net sales	\$245,239,611	\$181,496,395
Net income	\$ 7,177,898	\$ 4,364,763

The above table reflects operating results of companies incorporated in foreign countries; it excludes the foreign operations of domestically incorporated companies.

Note B: Inventories

The company follows the practice of accruing income from certain fixed price contracts on the percentage of completion method with costs and estimated profits included in sales as work is performed. Accrued income is based on that percentage of estimated total income that incurred costs to date bear to total estimated costs after giving effect to the most recent estimates of cost and funding at completion. On certain fixed price contracts for United States Government business, increased funding has been assumed based on equitable adjustments of contract prices for increased scope and other changes ordered by it. Some contracts contain incentive provisions based upon performance in relation to established targets to which applicable recognition has been given in the contract estimates. Many of these contracts extend over long periods of time and revisions in cost and funding estimates during the progress of work have the effect of adjusting income in the current period applicable to performance in prior periods. When the current contract estimate indicates a loss, provision is made for the total anticipated loss. In accordance with these practices, fixed price contracts in process are stated at cost plus estimated profit but not in excess of realizable value.

Other inventories are stated at cost (first-in, first-out or average basis) but not in excess of net realizable value. The composition of such inventories at December 31 is as follows:

	1971	1970
Finished goods	\$ 40,197,295	\$ 40,099,841
Work in process	50,371,463	48,822,526
Materials and purchased parts	30,776,435	34,233,768
	<u>121,345,193</u>	<u>123,156,135</u>
Less progress payments received	5,849,825	6,156,503
	<u>\$115,495,368</u>	<u>\$116,999,632</u>

Note C: Property, Plant and Equipment

Property, plant and equipment, stated at cost, consists of the following at December 31:

	1971	1970
Land	\$ 4,973,939	\$ 5,111,692
Buildings and leasehold improvements	83,988,594	80,824,868
Machinery and equipment	199,427,519	191,699,242
	<u>288,390,052</u>	<u>277,635,802</u>
Less accumulated depreciation and amortization	159,704,165	144,470,765
	<u>\$128,685,887</u>	<u>\$133,165,037</u>

Provisions for depreciation are computed generally on the sum-of-the-years digits method, except for certain subsidiaries that use the straight-line or declining balance method. Useful lives, on which depreciation provisions are based, approximate U.S. Treasury guidelines. Leasehold improvements are amortized over the lesser of the life of the lease or the estimated useful life of the improvement.

Note D: Long-Term Debt

Long-term debt at December 31, 1971, consists of the following:

8¼ % Sinking Fund Debentures, due 1996	\$50,000,000
5½ % notes payable \$1,000,000 semiannually with balance payable December 1, 1981	25,000,000
8 % note payable in 1979	5,211,400
Other notes (principally in the range of 5 % to 6¾ %) payable in installments, maturing at various dates from 1972 to 1982 (including \$2,692,344 of mortgage notes)	8,424,485
	<u>88,635,885</u>
Less amounts maturing during 1972	3,029,532
	<u>\$85,606,353</u>

The aggregate amounts of indebtedness maturing in each of the succeeding four years are: 1973 – \$3,008,670; 1974 – \$4,989,568; 1975 – \$3,063,492; 1976 – \$2,756,817.

The indenture for the 8¼ % Sinking Fund Debentures provides that the company will make annual sinking fund payments of \$3,300,000 prior to July 1 in each of the years 1982 through 1995 and may at its option increase any sinking fund payment by an additional \$3,300,000 in each of said years. The Debentures may be redeemed at the option of the company, as a whole or in part, at any time, at prices decreasing from 107.75% of face value currently to 100% in 1991 and thereafter, except that until 1981, borrowed funds used for this purpose must bear a higher interest rate.

Under the agreement covering the 5½ % notes due through 1981, \$117,278,167 of earnings reinvested in the business at December 31, 1971, was unrestricted with respect to cash dividends on common stock.

Note E: Federal and Foreign Income Taxes

The company and its domestic consolidated subsidiaries record provision for federal income taxes on pretax accounting income at rates in effect under existing tax law, less investment tax credits recorded on a flow-through basis (1971 – \$441,928; 1970 – \$271,055) and other tax credits. Foreign subsidiaries have recorded provision for income taxes at applicable foreign tax rates in a similar manner. Except for the foreign subsidiaries of The Badger Company, Inc., no provision has been made for United States or foreign taxes that would accrue if the retained earnings of the foreign subsidiaries were distributed in the form of dividends.

Income reported for federal and foreign tax purposes differs from pretax accounting income due to various requirements of internal revenue codes and the company's accounting

practices. The differences are not fully determined until after the reporting of the results for the year. At December 31, 1971, the net credit balance of deferred taxes and the net decrease during the year were estimated to be \$13,000,000 and \$1,500,000, respectively.

Note F: Commitments and Contingent Liabilities

At December 31, 1971, the company had long-term leases on real property expiring on various dates subsequent to 1974, requiring annual rentals on a net lease basis of approximately \$8,300,000 through 1974, and lesser amounts thereafter.

Various claims, generally incidental to the conduct of normal business, are pending or threatened against the company from time to time. Ultimate liability, if any, is presently indeterminable and, in the opinion of management, should have no material adverse effect on the financial condition of the company.

Note G: Stock Options

During 1971, options to purchase 47,000 shares of common stock under the 1968 Qualified Stock Option Plan were granted to officers and employees at prices equivalent to 100% of the fair market value on the date of grant. Options for 73,234 shares were exercised at prices ranging from \$17.81 to \$37.56 per share, and options for 21,777 shares expired.

At December 31, 1971, options to purchase 685,405 shares of common stock were outstanding at prices ranging from \$17.81 to \$56.03 of which options for 462,732 shares were exercisable. All outstanding options expire at various dates through December 22, 1976.

Note J: Capital Stock and Capital in Excess of Par Value

Changes during the year ended December 31, 1971, in capital stock and capital in excess of par value were as follows:

	Series A Preferred		Common		Capital in
	Shares	Amount	Shares	Amount	Excess of Par Value
Balance at beginning of year	1,239,183	\$3,097,957	13,766,773	\$34,416,933	\$44,095,687
Shares sold to officers and employees under stock option plans			73,234	183,085	1,611,868
Conversion of Series A preferred stock to common stock	(306,827)	(767,067)	306,827	767,067	
Common shares reacquired			(10,000)	(25,000)	(29,960)
Balance at end of year	<u>932,356</u>	<u>\$2,330,890</u>	<u>14,136,834</u>	<u>\$35,342,085</u>	<u>\$45,677,595</u>

The Series A, cumulative preferred stock is convertible into common stock on the basis of one share of Series A for one share of common stock. Each share of Series A has one vote per share. The company has called for the redemption of all the outstanding Series A stock on February 1, 1972, at a price of \$27.69 per share. Through January 20, 1972, 831,926 shares of Series A stock, outstanding at December 31, 1971, had been converted into an equal number of shares of common stock.

Note H: Earnings per Common Share

Earnings per common share shown in the Statements of Income and Earnings Reinvested in the Business are based upon the weighted average number of common shares outstanding during each year. Income before extraordinary item and net income are reduced by the Series A preferred stock annual dividends.

Fully diluted earnings per common share assumes the full conversion of the Series A preferred stock as if effected on January 1, 1970; and, in addition, the annual computation of additional shares resulting from the exercise of all outstanding dilutive stock options, reduced by the number of shares repurchasable from the assumed proceeds of the exercise of such options. No dilution would result from shares contingently issuable in connection with acquisition agreements.

Note I: Pension Plans

The company and its consolidated subsidiaries have several pension and retirement plans covering substantially all employees, including certain employees in foreign countries.

Total pension expense charged to income was \$8,584,293 and \$8,502,508 in 1971 and 1970, respectively.

Current service costs and interest on prior service costs are accrued and funded as incurred. Generally, prior service costs are amortized and funded over periods of from twenty to thirty years.

Unfunded prior service costs approximated \$24,238,000 at December 31, 1971, of which \$1,473,954 was accrued at that date. The amounts funded and accrued exceeded the actuarially computed value of vested benefits at December 31, 1971, for all plans except three, wherein excess vested benefits amounted to \$2,765,000.

At December 31, 1971, the following shares of common stock were reserved:

For stock options (Note G)	779,950
For conversion of outstanding Series A preferred stock	932,356
For contingent issuance of shares in the acquisitions of P.E.D., Inc. and Caedmon Records, Inc.	93,277
	<u>1,805,583</u>

Auditor's Opinion

To the Board of Directors and Stockholders
Raytheon Company
Lexington, Massachusetts

We have examined the balance sheet of Raytheon Company and consolidated subsidiaries at December 31, 1971 and the related statements of income and earnings reinvested in the business and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the financial statements for the year 1970.

In our opinion, the aforementioned financial statements present fairly the financial position of Raytheon Company and consolidated subsidiaries at December 31, 1971 and 1970, and the results of their operations and changes in financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Sydney, Ross Bros. & Montgomery

Boston, Massachusetts
January 20, 1972

Common Stock Transfer Agents

Morgan Guaranty Trust Company of New York
New York, New York 10015
Harris Trust and Savings Bank
Chicago, Illinois 60690
Bank of America NT & SA
San Francisco, California 94120
The First National Bank of Boston
Boston, Massachusetts 02106

Preferred Stock Transfer Agents

Morgan Guaranty Trust Company of New York
New York, New York 10015
The First National Bank and Trust Company of Tulsa
Tulsa, Oklahoma 74102

Common Stock Registrars

Manufacturers Hanover Trust Company
New York, New York 10015
Continental Illinois National Bank
and Trust Company of Chicago
Chicago, Illinois 60690
United California Bank
San Francisco, California 94104
The National Shawmut Bank of Boston
Boston, Massachusetts 02106

Preferred Stock Registrars

Manufacturers Hanover Trust Company
New York, New York 10015
National Bank of Tulsa
Tulsa, Oklahoma 74102

The Annual Meeting of Stockholders will be held on May 24, 1972, at the Executive Offices of the company, Lexington, Massachusetts. Notice of the meeting and proxy material will be sent to stockholders in April.

This Annual Report is submitted for the general information of the stockholders of Raytheon Company and is not intended for use in connection with any sale or purchase of, or as an offer or solicitation of offers to buy or sell, any securities.

Directors	Management	Operating Management	
Charles F. Adams <i>Chairman of the Board</i>	Charles F. Adams <i>Chairman of the Board</i>	Adrian J. Broggini <i>Chairman of the Board</i> <i>The Badger Company, Inc.</i>	Harold M. Hart <i>Vice President</i> <i>Assistant General Manager –</i> <i>Technical</i> <i>Equipment Division</i>
Charles F. Avila <i>Retired Chairman of the Board</i> <i>Boston Edison Company</i>	Thomas L. Phillips <i>President</i>	Henry M. Chance II <i>Chairman of the Board</i> <i>United Engineers</i> <i>& Constructors Inc.</i>	Dean M. Laux <i>President</i> <i>D.C. Heath and Company</i>
Harvey Brooks <i>Dean of Engineering and</i> <i>Applied Physics</i> <i>Harvard University</i>	D. Brainerd Holmes <i>Executive Vice President</i>	John D. Clare <i>Vice President</i> <i>General Manager</i> <i>Raytheon Europe</i>	Harry A. Loebel <i>President</i> <i>Raytheon Service Company</i>
Roger C. Damon <i>Former Chairman of the Board</i> <i>First National Boston Corporation</i>	<u>Corporate Staff Management</u> John R. Allison <i>Senior Vice President, Treasurer</i>	Thomas M. Dahl <i>President</i> <i>United Engineers</i> <i>& Constructors Inc.</i>	Justin M. Margolskee <i>Vice President</i> <i>General Manager</i> <i>Missile Systems Division</i>
Eli Goldston <i>President</i> <i>Eastern Gas and Fuel Associates</i>	Albert H. Bryan, Jr. <i>Vice President</i> <i>Government Programs</i>	Edward L. Dashefsky <i>Senior Vice President</i> <i>General Manager</i> <i>Microwave and Power Tube</i> <i>Division</i>	J. Thomas Markley <i>Vice President</i> <i>Assistant General Manager –</i> <i>Operations</i> <i>Equipment Division</i>
William J. Hogan <i>President</i> <i>Victory Carriers, Inc.</i>	Harry L. Evans <i>Vice President</i> <i>Corporate Development</i>	Luther Davis, Jr. <i>General Manager</i> <i>Research Division</i>	Ralph A. Martin <i>Vice President</i> <i>General Manager</i> <i>Submarine Signal Division</i>
D. Brainerd Holmes <i>Executive Vice President</i>	Francis S. Fox <i>Vice President</i> <i>Corporate Affairs</i>	Palmer Derby <i>Vice President</i> <i>Assistant General Manager</i> <i>Microwave and Power Tube</i> <i>Division</i>	Aldo R. Miccioli <i>Vice President</i> <i>Programs Manager, Tactical</i> <i>Ground Defense Systems</i> <i>Missile Systems Division</i>
Gordon B. Jones <i>Executive Vice President</i> <i>Financial Operations</i> <i>John Hancock</i> <i>Mutual Life Insurance Company</i>	Fritz A. Gross <i>Vice President, Engineering</i>	Glennon J. Doyle <i>President</i> <i>Caloric Corporation</i>	Maxwell O. Paley <i>President</i> <i>Raytheon Data Systems Company</i>
Albert L. Nickerson <i>Retired Chairman of the Board</i> <i>Mobil Oil Corporation</i>	W. Rogers Hamel <i>Vice President</i> <i>Corporate Activities</i> <i>Washington, D.C.</i>	Francis M. Dowd <i>General Manager</i> <i>Semiconductor Division</i>	Joseph F. Shea <i>Senior Vice President</i> <i>General Manager</i> <i>Equipment Division</i>
Thomas L. Phillips <i>President</i>	Robert G. Hennemuth <i>Vice President</i> <i>Industrial Relations</i>	George C. Foerstner <i>President</i> <i>Amana Refrigeration, Inc.</i>	Rulon G. Shelley <i>General Manager</i> <i>Electromagnetic Systems Division</i>
Robert W. Stoddard <i>Chairman of the Board</i> <i>Wyman-Gordon Company</i>	E. Nevin Kather <i>Vice President</i> <i>Component Marketing</i>	Mike W. Fossier <i>Vice President</i> <i>General Manager</i> <i>Strategic Defense</i> <i>Systems Division</i>	Robert E. Siegfried <i>President</i> <i>The Badger Company, Inc.</i>
Gerald H. Westby <i>Honorary Chairman of the Board</i> <i>Seismograph Service Corporation</i>	Robert L. McCormack <i>Vice President</i> <i>Director, Real Estate Planning</i>	Charles A. Fowler <i>Vice President</i> <i>Manager, Equipment</i> <i>Development Laboratories</i> <i>Equipment Division</i>	E.D. Wilson <i>President</i> <i>Seismograph Service Corporation</i>
	Joseph Oppenheim <i>Vice President</i> <i>International Affairs</i>	Joseph Glasser <i>Vice President</i> <i>Manager, Andover Plant</i> <i>Missile Systems Division</i>	Floyd T. Wimberly <i>Vice President</i> <i>Manager, SAM-D Program</i> <i>Missile Systems Division</i>
	Charles H. Resnick <i>Vice President, Secretary</i> <i>and General Counsel</i>	Kenneth J. Haas <i>Executive Vice President</i> <i>Caloric Corporation</i>	
	Arthur V. Schene <i>Vice President, Controller</i>		
	Martin Schilling <i>Vice President</i> <i>Research and Development</i>		
	Robert L. Seaman <i>Vice President, Planning</i>		
	John G. Stobo <i>Vice President, Manufacturing</i>		
	Richard P. Axten <i>Director, Financial Relations</i>		
	John F. Campbell <i>Director, Public Relations</i>		
	Richard F. Daly <i>Director, Government Marketing</i>		
	James M. Hill, Jr. <i>Director, Procurement</i>		
	Stephen W. Rowen <i>Director, Government Contracts</i>		



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